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**ecology and environment, inc.**

195 SUGG ROAD, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-632-4491, TELEX 91-9183

International Specialists in the Environmental Sciences

MEMORANDUM

TO: Randy Videkovich, CH2M Hill, Milwaukee

FROM: David Dahlstrom *[Signature]*

DATE: September 20, 1983

SUBJECT: Amendment to the Site Safety Plan for the Old Mill Site; W65225.00

cc: File CH798-2

This amendment to the original site safety plan prepared for this site is meant to incorporate the specific items agreed upon during our phone conversation of this morning. Therefore, all subsequent points discussed herein will be integrated into the existing plan.

1. Geophysical work (surface magnetometer survey): This work involving principally a walk-through of the site using a magnetometer for survey purposes can be performed by personnel wearing Tyvek S/1422A (white) coveralls rather than the specified Tyvek/Saranex coveralls. However, if areas of contaminated/stained soils are noted during this survey where permeation of the tyveks is deemed a potential hazard, the saranex suits are to be worn.
 - Saranex suits will be worn by those personnel participating in any subsurface investigations (i.e. drilling, well monitoring).
2. Robertshaw escape masks will be left in close proximity to the workers while subsurface (drilling) activities are being conducted. While it is not necessary to physically carry these masks while working, they should be located within arms reach.
3. The HNU photoionizer may be used as a survey instrument in lieu of the OVA. The 11.7 ev. lamp should be used with the HNU.
4. All subcontractor personnel will receive appropriate training in the use of the respiratory equipment and other on-site operations in which they will be involved. A physician's written approval for each member of the subcontractor's personnel, permitting the use of respiratory equipment, must be obtained prior to work on-site.
5. Subsurface geophysical work will be performed in a minimum of level "C" attire unless further monitoring data and site conditions, in the opinion of the site team leader and the site safety officer, indicate an appropriate modification to levels "D" or "B". This requirement includes well

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sampling (on-site), well drilling, and subsurface soil sampling.

6. Contaminated soil sampling on-site, drum sampling (pre-opened) will require level "C" attire as a minimum due to the unknown nature of the contaminants on site.
7. Off-site sediment sampling, well sampling, and water sampling will be conducted in a minimum of level "D" protection, but will primarily be mandated by the level of contaminants (via monitoring) perceived associated with these environmental media. Dermal protection is required; the need for respiratory protection necessary will be determined by the concentration of ambient vapor levels as defined by the HNU. Contaminant levels above background to 5 ppm require the use of air purifying apparatus; above 5 ppm requires level "B" protection.
8. All analytical survey/monitoring equipment is to be field calibrated via calibration gas daily prior to the initiation of work.

ECOLOGY AND ENVIRONMENT, INC.
R.E.M. FIELD INVESTIGATION TEAM
SITE SAFETY PLAN

A. GENERAL INFORMATION

SITE: Rock Creek/Old Mill/Jack Webb CH₂M HILL No: W65225,00
WSTS No: _____

LOCATION: Rock Creek, Ohio - Ashtabula County

PLAN PREPARED BY: A. Szilagyi DATE: 9/15/83

* APPROVED BY: [Signature] DATE: 9/15/83

OBJECTIVE(S): Perform geophysical (electromagnetic, magnetometer and electric resistivity) surveys; and detailed site characterization studies including groundwater monitoring (wells) surface water and soils collection and analysis

PROPOSED DATE OF INVESTIGATION: October 1, 1983

BACKGROUND REVIEW: Complete: X Preliminary: _____

DOCUMENTATION/SUMMARY: OVERALL HAZARD: Serious: _____ Moderate: _____
Low: X Unknown: _____

B. SITE/WASTE CHARACTERISTICS

WASTE TYPE(S): Liquid X Solid X Sludge X Gas _____
CHARACTERISTIC(S): Corrosive X Ignitable X Radioactive _____
Volatile X Toxic X Reactive _____ Unknown _____ Other (Name) _____

FACILITY DESCRIPTION: Site has been occupied by nursery, potting soil firm, and Rapco Foam - manufacturing urea-formaldehyde beads. Site also accepted drummed wastes and performed waste reclamation.

Principal Disposal Method (type and location): Drum and tank storage.

Unusual Features (dike integrity, power lines, terrain, etc.) Site contains four (4) dilapidated wooden buildings and four (4) brick silos.

Status: ~~active~~ inactive, ~~unknown~~ Inactive

History: (Worker or non-worker injury; complaints from public; previous agency action): June 1979 first EPA inspection. Feb. 1980 drums from Kraus site moved to Henfield site bringing total number of drums to 1,200. Site closed June 1979. Groundwater study by K.B. Assoc. in January 1981. TAT conducted compatibility tests and sampling of drums in November 1981. Cleanup started in Sept. 1982 and completed by Oct. 1982. All drums and 1-2 inches of scrapped contaminated soils have been removed.

* Note: This is a "limited Approval" Safety plan. The medical and TRAINING Records for the subcontractor and drilling personnel have not been received. Consequently these people are not approved for on-site work until their records are received.

C. HAZARD EVALUATION

Site at one time had tanks, drums, and soil contamination. Major contamination was from PCBs, flammable solvents, paint wastes, solids contaminated with solvents and possibly acids. The site has been cleaned - drums and tanks removed, surface layer of soil scraped into 2 small piles, and removed. Due to this cleanup activity, the overall hazard appears low. However, potentially hazardous areas on-site include: 1) on-site buildings and silos which are in disrepair and should be avoided, 2) any puddles or standing water or stained soil, 3) conduit on S.W. corner of site. Strict contamination avoidance should be adhered to near these areas. The structural integrity of the buildings and silos should be investigated before entering to sample.

D. SITE SAFETY WORK PLAN

PERIMETER ESTABLISHMENT: Map/Sketch Attached X Site Secured: No
Perimeter Identified? Yes Zone(s) of Contamination Identified? Yes
Potential contamination of soils, groundwater and residential drinking water wells.

PERSONAL PROTECTION

Level of Protection: A B X C X D X

Modifications: See Attachment A

Surveillance Equipment and Materials:

HNU and OVA for continuous monitoring during geophysical surveys and drilling and soil surveys. Any readings above background will require upgrading as discussed above.

DECONTAMINATION PROCEDURES: Boots and other garments which have come into contact with potentially contaminated surfaces are to be thoroughly washed and rinsed at the hotline. The disposables, should be bagged, labeled, drummed and left on-site. All drilling and sampling equipment should be decontaminated between samples.

Special Equipment, Facilities, or Procedures Detergent and rinse water, Wash tubs

Brushes

Disposables and equipment drop area

Steam or solvent decontamination of drill equipment

SITE ENTRY PROCEDURES: Enter fully dressed in modified Level D from an upwind direction and maintain contamination avoidance. Groundwater well installation and sampling and soil sampling will require Level C protection.

Team Member

Responsibility

Randy Videkovich

CH2M Hill - PM

Steve Carter

ESE - PM

Undesignated

E & E or CH2M Hill Site Safety Officer

William Dowd

Ede11 W. Finley

Mike Geden

ESE

Gene Foster

ESE

Heidi Dunn

ESE

Kirt Myer

ESE

Undesignated

Drilling subcontractor

Manual
training
has been
provided.

This precludes their participation on this job until
such records have been received. Approval of this
training these people is limited solely to CH2M, E&E personnel.

WORK LIMITATIONS (Time of day, etc.): Daylight hours; no drilling during thunderstorms or lightning situations; verify emergency routes and telephone numbers prior to site activity.

INVESTIGATION-DERIVED MATERIAL DISPOSAL: Will be properly labeled and disposed on-site. This includes boot covers, possibly gloves, and disposable coveralls, and cannisters if they come in contact with contaminated materials. All drilling water will be contained and drummed.

E. EMERGENCY INFORMATION
LOCAL RESOURCES

Ambulance Rock Creek Fire Dept., Rock Creek (216) 576-6600
Hospital Emergency Room Ashtabula General - (216) 998-3111
Poison Control Center _____
Police Rock Creek P.D. - (216) 576-4901 576-8855
Fire Department Rock Creek Fire Dept. - (216) 563-3333
Airport Ashtabula County A.P. - (216) 275-3821
Explosives Unit _____
EPA Contact _____

SITE RESOURCES

Water Supply _____
Telephone Rock Creek Aluminum Company adjacent to site and/or residential homes.
Radio _____
Other _____

EMERGENCY CONTACTS

1. Dr. Raymond Harbison (University of Arkansas) (501) 661-5766 or 661-5767
(501) 370-8263 (24 hour)
2. Safety Coordinator/D. Dahlstrom (716) 632-4491 (Office)
(716) 741-2384 (Home)
3. RPT Leader
4. RPT Office
5. Ecology and Environment, Inc. NPMO . . . (703) 522-6065
6. Regional Health Maintenance
Program Contact
- 7.
- 8.
- 9.
- 10.

F. EMERGENCY ROUTES

(Give road or other directions; attach map)

HOSPITAL: 2420 Lake Avenue, Ashtabula

EMERGENCY ROUTE MUST BE ESTABLISHED AND DRIVEN PRIOR TO
ON-SITE ACTIVITY.

OTHER:

This safety plan is based on information obtained from a
surface reconnaissance survey. Subsurface conditions have not
been investigated and additional hazards may become evident
(such as the release of organic vapors) during drilling activi-
ties.

ATTACHMENT A

ROCK CREEK/OLD MILL/JACK WEBB SITE SAFETY PLAN

PERSONAL PROTECTION

Modifications:

Level D will include: Tyvek* coveralls, ultratwin respirators should be available and donned should odors exist (GMC-H cartridges) or OVA monitoring action level is 1-5ppm above background. Level C (with powered air purifying respirators) will be used initially when installing the monitoring wells and collecting soil samples to provide protection against potential PCB contamination by dust and exposure via the respiratory route. The powered APR can only be used if monitoring does not show organic values above background. After initial breakthrough of the drill bit and reduced dust, downgrade to modified Level D. Level B protection will be required during drilling if OVA action level is more than 5ppm above background. Neoprene gloves under work gloves, neoprene boots, hard hats, Robertshaw escape masks.

Prior to site work, drilling subcontractors will undergo approved physical examinations, and training in the use and limitations of APR and SCBA. Fit testing will also be conducted.

During drilling operations all personnel at the rigs will comply with appropriate levels of protection including hearing protection. When welding the pipe casing, the drilling subcontractors will use approved protection (welding sleeves and hood) and comply with OSHA 29 CFR 1926.350-1926.354; 1926.102(B) and 1926.556(B)(5).

For soil characterization, neoprene gloves will be replaced with Latex gloves.

When sampling inside the buildings, confined space entry will be adhered to using O₂ meter and explosimeter in Level C protection. Action levels for upgrading to Level B includes less than 19.5 or more than 21.0% oxygen and 25% LEL on the explosimeter.

During decontamination of the drilling rigs, if solvent decontamination is used, Level C protection will be adhered to.

Prior to startup of work, daily safety meetings will be held.

*Saranex

M E M O

TO: Randy Videkovich
FROM: A. Szilagyi
SUBJECT: Rock Creek (W65215 and W65225) Site Health and Safety Assessment
(Synonyms: Old Mill and Jack Webb)
DATE: 9/14/83
CC: L. Mango, L. Adams, D. Dahlstrom, P. Gorton, G. Millner

Introduction

On Tuesday, September 13, 1982 a reconnaissance survey was conducted of the Rock Creek Site by A. Szilagyi and G. Millner of Ecology and Environment, Inc. The objectives of the survey were to determine and document the existence of potentially hazardous chemical exposure levels and dangerous physical features. Level D personal protection (with APR availability) was used and thorough air monitoring was conducted using an organic vapor analyzer (OVA) in the survey mode. OVA monitoring was conducted throughout the site, in test bore holes, over drums, and various containers, drainage ditch, buildings (from the doorway) tanks, and tank trucks, and soils and collected standing water areas.

Facility Description

The Rock Creek (or Old Mill) site, located in the Village of Rock Creek, Ashtabula County, Ohio, consists of two separate parcels: the Kraus property and the Henfield property.

The Henfield property (on which the previous businesses were operating) occupies an area of about three acres and is bounded by Station Street on the north, Mill Street on the east, an abandoned section of Penn Central Railroad on the west and Rock Creek Aluminum Company on the south (see Figure 1). This parcel is presently abandoned and includes four dilapidated wooden buildings and four concrete silos. The buildings are unsecured and for the most part empty with some paint cans and other containers scattered about. An unobstructed drainage ditch is located in the southwest corner of the property along the boundary fence line of Rock Creek Aluminum Company.

The Henfield property is of fairly flat topography with a berm located near the northern property line. Just north of the berm, 10-15 fiberglass "sinks" were found mostly empty. With the exception of a number of bare spots, ground cover is dense with vegetation growing to five feet in height fairly uniformly over the property. Numerous test bore holes ranging from 0.3 to 1.0 meters in depth were found with one revealing a 2" diameter steel pipe passing through it. Site security is poor along most of the property with the exception of the southern boundary with Rock Creek Aluminum. Public

access is unrestricted. The Kraus property located northwest of the Henfield parcel just across Station Street is about 10 acres in area. This land was used as a drum storage area when space became limiting at Henfield. Presently one building is located on site and the rest of the area is utilized as a "junk yard." Approximately 30-40 trucks and pieces of heavy machinery in various states of decomposition are scattered throughout the site. In addition to the two tanks identified in the Draft Work Plan (EPA work assignment number 47.5L25.0) three tank trucks (one labelled as Rock Creek Fire Department) and 15-20 fiberglass tanks were also observed.

The Kraus property is generally of flat topography with the exception of an area covered with piles of railroad ballasts. Vegetation is tall and dense over most of the area, but bare spots are also evident. Site security at the Kraus property is non-existent and public access is unrestricted.

Health and Safety Assessment

In the known history of the Rock Creek Site, it has been occupied by a nursery, a potting soil firm, and Rapco Foam-manufacturers of urea-formaldehyde white beads. The site has also accepted drummed waste and performed waste reclamation. Major contaminants were PCB's, solvents, paint wastes, and possibly acids.

While analysis of previously collected soil and water samples from the Rock Creek Site "did not show any indications of any significant contamination..." a number of reported incidence of acute health effects correlated to exposure at the site have occurred. A composite sample from four drums has detected PCB's (polychlorinated biphenols) at a concentration of 625 ppm, but by October 1982 all drummed wastes and 1 to 2 inches of contaminated soil was removed from the site.

The walk-over reconnaissance level survey conducted by E & E on 9/13/83 did not reveal the presence of any obvious hazardous chemicals, although the tanks, tank trucks and materials inside the buildings have the potential to contain a variety of unknown contaminants. OVA readings did not deviate from background readings (0.5 ppm on Henfield and 2.5 ppm on Kraus) with the exception of one area located on the Kraus property. OVA readings of 4.5-5.0 ppm were recorded from an area of soils discolored by a black-tarry liquid located underneath the rear axle of an orange tank truck (Ohio license plate No. 761G13). This material appeared to be of hydrocarbon origin, i.e. lubricating oil or brake fluid.

Based on the characterization of the wastes (and soils) removed, PCB contamination (and organic solvents) appeared to be the prime concern at the Rock Creek Site. PCB availability to workers on the site is estimated to be (if at all) via physical contact and by the respiratory route as PCB's adhered to dust particles.

Polychlorinated biphenyls (PCB's) are manufactured by chlorinating any one of 10 available carbon atoms of the biphenyl molecule. In the commercial synthesised chlorobiphenyls, biphenyl is catalytically chlorinated with

anhydrous chlorine; either iron filings or ferric chloride may be used as the catalyst. Commercial PCB's are insoluble in water but soluble in oil and many organic solvents. PCB's may also contain chlorinated dibenzofurans and naphthalenes and the degree of toxicity has been shown to vary greatly with the degree of chlorination and extent of contamination with polychloro dibenzofurans.

While the health effects of PCB's are not fully understood, evidence indicates adverse reproductive and tumorigenic effects in test animals exposed to certain commercial PCB preparations and effects ranging from chloracne to liver damage in man. Symptoms include eye irritations, dermatitis, hepatic degeneration fatigue, and dark urine. Occupational exposure (air) as defined by NIOSH, is set at concentrations no greater than 1.0 micrograms/m³ of air determined as a time weighted average concentration per up to a 10 hour workday, 40 hour workweek, (IDLH = 10mg/m³). When airborne concentrations above 1.0ug/cu m exist SCBA use is recommended.

Based on a technical review of PCB's and on the results of the reconnaissance survey, the potential for adverse health effects from chemical exposure (PCB's and organics) at the Rock Creek Site is evaluated to be low. This evaluation is based on a "surface survey," and potential for exposure increases for both PCB's and organics during drilling operations due to increased dust in the air and the potential for releasing volatile organics. Results of the reconnaissance survey further indicate that one of the most imminent dangers could be due to the dilapidated condition of the wooden buildings on site. As such, the structural integrity of these buildings should be investigated prior to any extensive work in and around them, and extreme caution should be exercised when sampling the buildings.

AS/mba

4/27/83

1) CHEMICAL NAME

~~PERCHLOROPHENYLENE-4,4'-DICHLORIDE~~

2) CHEMICAL FORMULA

ClC1=CC=C(C=C1)C(Cl)=CC=C1

3) SYNONYMS

~~PERCHLOROPHENYLENE-4,4'-DICHLORIDE~~

~~PERCHLOROPHENYLENE-4,4'-DICHLORIDE~~

AROCHELOR 1242

PERMISSIBLE EXPOSURE LIMIT

1 MG/M3

NIOSH 1.0 UG/M3

10 HR TWA

CARCINOGEN SUSPECT

TLV-1 MG/M3 AIR

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION

10 MG/M3

PHYSICAL DESCRIPTION

COLORLESS TO DARK BROWN LIQUID, MILD HYDROCARBON ODOR

MOLECULAR WEIGHT: 258

BOILING POINT AT 1 ATM, F: 617F-691F

SOLUBILITY IN WATER, G/100 G WATER AT 20C: INSOLUBLE

FLASH POINT, CLOSED CUP, F (OR OPEN CUP IF OC): 349F

VAPOR PRESSURE AT 20 C MM HG: 0.001MM

MELTING POINT, F: -2F

UPPER EXPLOSIVE LIMIT IN AIR, % BY VOLUME: NA

LOWER EXPLOSIVE LIMIT IN AIR, % BY VOLUME: N/A

1) INCOMPATIBILITIES

STRONG OXIDIZERS

PROTECTIVE EQUIPMENT REQUIREMENTS:

PREVENT SKIN CONTACT

WEAR IMPERVIOUS CLOTHING

WEAR GLOVES

WEAR FACESHIELD (8 INCH MINIMUM)

PREVENT REPEATED OR PROLONGED SKIN CONTACT

PROVIDE CONTAINER TO STORE CLOTHING UNTIL LAUNDERED OR DISCARDED

WEAR GOGGLES - SPLASH PROOF/DUST PROOF

PLACE CONTAMINATED CLOTHING IN CLOSED CONTAINER TIL LAUNDERED OR DISCARDED

INFORM PERSONS HANDLING CONTAMINATED CLOTHING OF HAZARDOUS PROPERTIES OF SUBSTANCE

WEAR IMPERVIOUS BOOTS

FOR EYE PROTECTION TO PREVENT:

ANY POSSIBILITY OF EYE CONTACT

EMPLOYEE SHOULD WASH:

PROMPTLY WHEN SKIN BECOMES CONTAMINATED

WORK CLOTHING SHOULD BE CHANGED DAILY:

NOTED

NOTED

REMOVE CLOTHING:
PROMPTLY IF IT IS NON-IMPERVIOUS AND CONTAMINATED

THE FOLLOWING EQUIPMENT SHOULD BE AVAILABLE:

- EYEWASH, QUICK DRENCH
- FOOD OR DRINK IN WORK AREA
- OR FOUNTAIN PROHIBITED IN WORK AREA
- CLOSED SYSTEM IF SUBSTANCE TO BE USED

RESPIRATOR SELECTION (UPPER LIMIT DEVICES PERMITTED)

10 MG/M3 :

- SUPPLIED AIR RESPIRATOR
- WITH FULL FACE-PIECE, HELMET, OR HOOD
- SELF-CONTAINED BREATHING APPARATUS
- WITH FULL FACEPIECE

ESCAPE :

- GAS MASK
- WITH PESTICIDE CANISTER
- CHIN-STYLE OR FRONT-OR BACK-MOUNTED
- SELF-CONTAINED BREATHING APPARATUS

FIREFIGHTING :

- SELF-CONTAINED BREATHING APPARATUS
- WITH FULL FACEPIECE
- OPERATED IN PRESSURE DEMAND OR POSITIVE-PRESSURE MODE

ROUTE OF ENTRY INTO BODY

INHALATION

INGESTION

SKIN OR EYE CONTACT

SYMPTOMS:

- IRRITATION EYE(S)
- DERMATITIS
- HEPATIC DEGENERATION
- FATIGUE
- DARK URINE
- JAUNDICE

FIRST AID

IF THIS CHEMICAL GETS INTO THE EYES, IMMEDIATELY WASH THE EYES WITH LARGE AMOUNTS OF WATER, OCCASIONALLY LIFTING THE LOWER AND UPPER LIDS. GET MEDICAL ATTENTION IMMEDIATELY. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH THIS CHEMICAL.

IF THIS MOLTEN CHEMICAL GETS ON THE SKIN, IMMEDIATELY FLUSH THE SKIN WITH LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION IMMEDIATELY. IF THIS CHEMICAL OR LIQUIDS CONTAINING THIS CHEMICAL GET ON THE SKIN, PROMPTLY WASH THE CONTAMINATED SKIN WITH SOAP OR MILD DETERGENT AND WATER. IF THIS CHEMICAL OR LIQUIDS CONTAINING THIS CHEMICAL PENETRATE THROUGH CLOTHING, IMMEDIATELY REMOVE THE CLOTHING AND WASH THE SKIN WITH SOAP AND WATER. IF IRRITATION PERSISTS AFTER WASHING, GET MEDICAL ATTENTION PROMPTLY.

IF A PERSON BREATHES IN LARGE AMOUNTS OF THIS CHEMICAL, MOVE THE EXPOSED PERSON TO FRESH AIR AT ONCE. IF BREATHING HAS STOPPED PERFORM ARTIFICIAL RESPIRATION. KEEP THE AFFECTED PERSON WARM AND AT REST. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

STATUS OF ENFORCEMENT

SUBSTANCE LISTED AS CARCINOGEN OR CANCER CAUSING AGENT IN
NATIONAL TOXICOLOGY PROGRAM ANNUAL REPORT ON CARCINOGENS
(COMPLIES WITH OSHA PROPOSED STANDARD 29CFR1910.1200
HAZARD COMMUNICATION AS A CARCINOGEN)

OSH CRITERIA DOCUMENT - 09-77

ANSI STANDARD

OSHA STANDARD 29CFR1910.1000 AIR CONTAMINANTS
OSHA RESPIRATORY PROTECTION STD 29CFR1910.134
NUCLEAR REGS RESPIRATORY PROTECTION STD 0041
OSHA ACCESS RECORDS STANDARD 29CFR1910.20
OSHA STANDARD 29CFR1910.132 GENERAL PROTECTIVE EQUIPMENT &
CLOTHING

OSHA STANDARD 29CFR1910.2(A) MAINTENANCE LOG OCCUPATIONAL
ILLNESSES

OSHA STANDARD 29CFR1910.151 MEDICAL SERVICES AND FIRST AID
OSHA STANDARD 29CFR1910.133 EYE AND FACE PROTECTION
OSHA STANDARD 29CFR1910.141 SHOWER FACILITIES PROVIDED
NIOSH SUSPECT CARCINOGEN OFFICAL LIST
SUBSTANCE LISTED CLEAN WATER ACT (CWA) SECTION 307(A)
40CFR129

LISTED TSCA INVENTORY

SUBSTANCE LISTED APPENDIX A-CONSENT DECREE LISTS OF TOXIC
POLLUTANTS AND INDUSTRIES. SETTLEMENT AGREEMENT BETWEEN
U.S. EPA AND NATIONAL RESOURCES DEFENSE COUNCIL, ET AL
U.S. DISTRICT COURT, DISTRICT OF COLUMBIA, JUNE 7, 1976.
SITE 8ERC2120, DDC 1976. MODIFIED MARCH 9, 1979, SITE
12ERC1833, DDC 1979 AND AGAIN ON OCTOBER 26, 1982.

FOR STATE LAWS ON HAZARDOUS MATERIALS, TRANSPORTATION, STORAGE,
RECYCLING, TREATMENT, AS WELL AS FOR RADIOACTIVE MATERIALS AND FOR
RIGHT-TO-KNOW LAWS, TYPE /STLA/, FOR 'STATE LAWS', TO RETRIEVE THE
STATE LAWS YOU DESIRE TO SEE.

MEDICAL SURVEILLANCE

GENERAL MEDICAL HISTORY
INDUSTRIAL EXPOSURE HISTORY
RESPIRATORY HISTORY
PRE-PLACEMENT AND ANNUAL EXAMS
BLOOD CHEMISTRY
WITH EMPHASIS ON RENAL AND LIVER FUNCTIONS
VISION TEST
URINALYSIS
EKG RECOMMENDED IF EMPLOYEE TO WEAR FULL-FACE RESPIRATOR
PULMONARY FUNCTIONS
PHYSICIAN EXAMINATION
COMPLETE BLOOD COUNT
14 BY 17 CHEST P.A. X-RAY
ATTENTION TO SMOKING, ALCOHOL, MEDICATION & EXPOSURE TO

HAZARDOUS SUBSTANCES
HAZARDOUS SUBSTANCE ADVISORY BOARD CREATED WITH PROVISIONS FOR MAKE-UP OF
ME. 78 AND GENERAL DUTIES.

P.A. 80-1304, 1978 HAZARDOUS MATERIALS RAILROAD TRANSPORTATION ACT

DOCTORS, LAWYERS PROVIDE MEDICAL WARNINGS TO EMPLOYEES IN
WRITING

CARCINOGEN SUSPECT AGENT -- MEDICAL WARNING
PERIODIC EXAM FOLLOWING EXPOSURE

IFICATIONS

HEALTH STATUS CLASSIFICATION

OSHA RESPIRATOR CERTIFICATION 29CFR1910.134

DEPARTMENT OF TRANSPORTATION IF OPERATES HEAVY EQUIPMENT

NUCLEAR REG. 0041

EMPLOYEE HAZARDOUS MATERIALS EDUCATION RECEIPT

EMPLOYEE MEDICAL RECORDS RECEIPT

MEDICAL WARNING REQUIRED FOR REFUSAL OF MEDICAL EXAM SIGNED BY
EMPLOYEE

SPECIAL TESTS

NONE IN COMMON USE

LEAKS AND SPILL PROCEDURES

RESTRICT PERSONS WITHOUT PROTECTIVE EQUIPMENT UNTIL
CLEANUP COMPLETE

FOR EMERGENCY RESPONSE, CONTACT NATIONAL RESPONSE CENTER, COAST
GUARD HEADQUARTERS, WASHINGTON, D. C., PHONE: 1-800-424-8802

REMOVE IGNITION SOURCES

VENTILATE TO DISPERSE FUMES/GASSES/DUST

THE FOLLOWING DATA FROM BUREAU OF EXPLOSIVES:

EMERGENCY HANDLING OF HAZARDOUS MATERIALS USING HMMA

CLASSIFICATIONS:

OTHER REGULATED MATERIAL - ORM-E: CRITERIA NOT DEFINED IN
ANOTHER CLASS

IF MATERIAL ON FIRE OR INVOLVED IN FIRE:

- ♦ EXTINGUISH USING SUITABLE MATERIAL TO SURROUND FIRE

IF MATERIAL IS NOT ON FIRE AND IS NOT INVOLVED IN FIRE:

- ♦ KEEP MATERIAL OUT OF WATER SOURCES AND SEWERS
- ♦ BUILD DIKES TO CONTAIN FLOW AS NECESSARY

PERSONAL DANGER SITUATION PROTECTION:

- ♦ KEEP UPWIND
- ♦ WEAR BOOTS, PROTECTIVE GLOVES AND GAS TIGHT GOGGLES
- ♦ WASH AWAY ANY MATERIALS WHICH MAY HAVE CONTACTED THE
BODY WITH COPIOUS AMOUNTS OF WATER OR SOAP AND WATER

- ♦ AVOID BREATHING VAPORS OR DUST

LAND SPILL

- ♦ DIG PIT, POND TO HOLD MATERIAL
- ♦ DIKE SURFACE FLOW USING SOIL, SANDBAGS, FORMED
POLYURETHANE OR FORMED CONCRETE

- ♦ ABSORB BULK LIQUID WITH FLY ASH OR CEMENT POWDER

WATER SPILL

- ♦ IF DISSOLVED, APPLY ACTIVATED CARBON AT 10 TIMES SPILLED
AMOUNT AT 10PPM OR GREATER CONCENTRATION

- ♦ USE MECHANICAL DREDGES OR LIFTS TO REMOVE IMMOBILIZED MASSES
OF POLLUTION AND PRECIPITATES

- ♦ USE DEEP WATER POCKETS, EXCAVATED LAGOONS OR SAND BAG
BARRIERS TO TRAP MATERIAL AT BOTTOM

- ♦ REMOVE TRAPPED MATERIAL WITH CARE

♦ USE DEEP WATER POCKETS, EXCAVATED LAGOONS OR SAND BAG
BARRIERS TO TRAP MATERIAL AT BOTTOM

♦ REMOVE TRAPPED MATERIAL WITH SUCTION HOSES

70 DISPOSAL METHODS

R 761. DATE 03 21 83 PCB RULE CHANGE FOR DISPOSAL GIVING
EPA (OFFICE OF PESTICIDES AND TOXIC SUBSTANCES) AUTHORITY OVER
DISPOSAL BY INCINERATION, DECHLORINATION, NEUTRALIZATION, INJECTION
OR RECYCLING PROCESSES TO RECOVER WASTE OILS CONTAINING PCB/S

ALL INCINERATION OF WASTE MATERIALS CONTAINING PCB/S TO MEET
REQUIREMENTS OF 40 CFR 761.70 REQUIRING CONTINUOUS MONITORING
OF GASES O2, CO WITH PERIODIC MONITORING OF CO2. REQUIRE WATER
SCRUBBERS FOR CONTROL OF HYDROGEN CHLORIDE AND REQUIRES THAT
SCRUBBER EFFLUENTS BE MONITORED TO MEET ALL STATE AND LOCAL
REQUIREMENTS.

71 NUMBER

53469-21-9

72 INDUSTRY TOXIC CHEMICALS NUMBER

TQ1356000

73 REGULATIONS

DATE 03 30 83 40 CFR 761. REVISED TO GIVE AUTHORITY TO THE
ASSISTANT ADMINISTRATOR OF OPCS (EPA OFFICE OF PESTICIDES AND
TOXIC SUBSTANCES) OVER APPROVAL OF ANY WASTE DISPOSAL WHICH
CONTAIN PCB/S

74 REFERENCES

01 3 82 ADOPT SEC 5218 GEN. IND. STNDS. WITH SPECIAL PROVISIONS
TO PETITION TO ELIMINATE THIS SUBS. FROM EPA RULES ON PCB DENIED
BY EPA 01 03 83--SUBS. FOUND AT MOWBRAY ENG.CO., GREENVILLE, ALA--
HURLEY PIT, EDMONDSEN, ARK.--JIBBOON JUNKYARD, SACRAMENTO, CAL--
HISM BRAKES, CLOVERDALE, CAL--SAIPAN, NORTH MARIANA IS.--ARACOM CORP
(DREXLER ENTERP. INC) RATHDRUM, IDAHO--LEMON LANE LDPL, BLSTON, IND--
JEDZEB ENTERP. INC, LEBANON, IND--A AND F MATERIALS/GREENUP, GREENUP
ILL.--BELVIDERE MUNICIPAL LDPL 1, BELVIDERE, ILL.--LASALLE ELEC. UT

75 WHAT INFORMATION YOU REQUIRE:

AL /, SPECIFIC INFORMATION (BY 4-LETTER COMMAND), /HELP/, OR /NONE/.

TLA

0 SEE SPECIFIC STATE LAW ABSTRACTS, TYPE THE POSTAL SERVICE TWO-LETTER
ABBREVIATIONS FOR THE STATE OR IF MORE THAN ONE STATE, SEPARATE THE
TWO-LETTER ABBREVIATIONS BY ONE SPACE.

ILLINOIS

P. 76-1442, 1976

HAZARDOUS SUBSTANCE ADVISORY BOARD CREATED WITH PROVISIONS FOR MAKE-UP OF
MEMBERS AND GENERAL DUTIES.

P. 80-1304, 1978 HAZARDOUS MATERIALS RAILROAD TRANSPORTATION ACT

OUTLINES AUTHORITY FOR SAFE MOVEMENT OF HAZARDOUS SUBSTANCES BY RAIL OR
AIR STORAGE WITHIN THE STATE OF ILLINOIS.

REM/FIT EMERGENCY MED-TOX PLAN

FOREWORD

The purpose of this document is to explain the response mechanism within E & E for dealing with accidental injuries or chemical exposures which may occur in the course of REM/FIT work. All REM/FIT personnel are responsible for following the provisions of this plan as part of the Corporate Health and Safety Program. In addition, each regional FIT office will draw up emergency telephone contact lists where indicated in this plan and disseminate them to their team members. A copy of this plan should accompany each team when working in the field.

EMERGENCY MED-TOX SYSTEM

The emergency MED-TOX system consists of the following response elements:

- (1) Field Team
- (2) Local REM/FIT Office
- (3) REM/FIT ZPMO
- (4) E & E Corporate Headquarters
- (5) MED-TOX Hotline
- (6) Health and Safety Advisory Committee

Figure 1 summarizes the activation process for this system.

EMERGENCY ACTIONS

A. Types of Emergencies

Emergencies that may occur during REM/FIT work include physical injury caused by motor vehicle accidents, falls, fires, etc. and chemical exposures caused by splashes, reactions, etc. Such incidents may involve one person or many on the REM/FIT team and could potentially involve the public offsite. For example, a fire could generate a sudden cloud or toxic vapors or gases.

The level of mobilization of the corporate-wide MED-TOX system will depend on the severity of the injury or exposure. For example, a sprained ankle does not have to be reported to the respective ZPMO until it is convenient during normal business hours. Traumatic physical injuries are considered severe and thereby require immediate reporting when they result in:

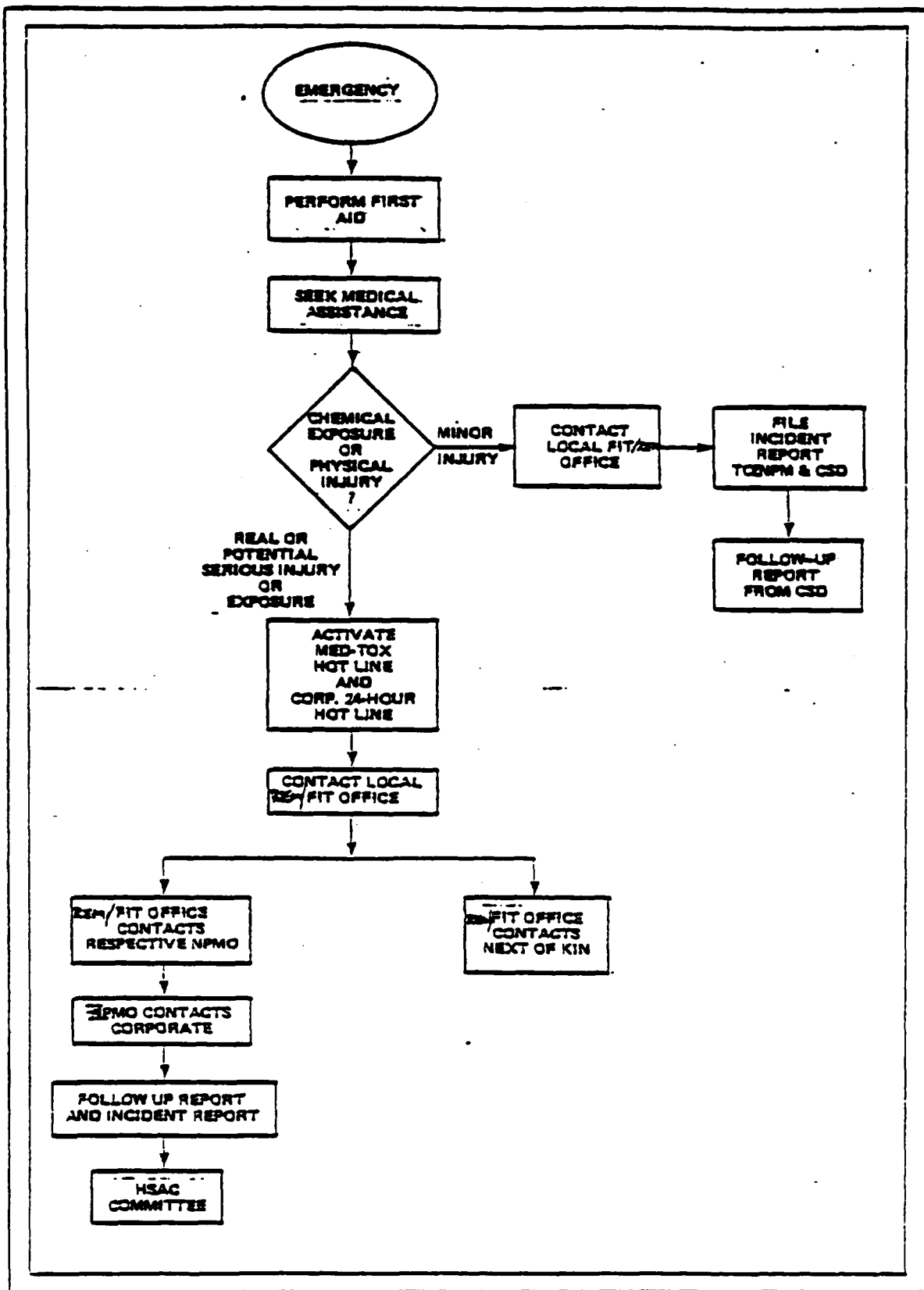


Figure 1 EMERGENCY MED-TOX SYSTEM

- o Death
- o Loss of consciousness
- o Medical treatment other than first aid

All Chemical exposures should be reported through the emergency system. However, any chemical exposure will be reported to the ZPMO as soon as possible after it occurs. The ZPMO will then decide whether it is necessary to pass the report on to corporate as an emergency or handle it through routine reporting procedures.

Responsibilities

- B. (1) The REM/FIT project site leader at the work site has prime responsibility for activating the emergency MED-TOX system onsite. If he or she is unable to do so, the responsibility will follow the order predetermined in the Site Safety Plan beginning with the Site Safety Officer. This person is responsible for:
 - (a) Initiating first aid (It may first be necessary to evacuate the person from the site if he is in imminent danger. Follow standard first aid procedure.) Normally, the Site Safety Coordinator will be available to begin emergency first aid.
 - (b) Obtaining medical assistance by either transporting the victim to a hospital or medical center as determined under the Site Safety Plan, or obtaining an ambulance. The problem of contaminating medical assistance personnel must be considered.
 - (c) Activating the MED-TOX System in case of a chemical exposure or potential exposure.
 - (d) Contacting the local REM/FIT office

If no one is available to help, the project team leader will carry out the first two responsibilities first with the remaining two to be completed as soon as practical. All four actions may be carried out simultaneously if help is available.
- (2) The REM/FIT leader at the local office is the prime contact for the project team leader. If he is unavailable, the responsibility follows the following line:
 - (a) Assistant REM/FIT Leader

(c) Regional Safety Coordinator

The office contact is responsible for:

- (a) Contacting the injured/exposed party's designated next-of-kin, with programmed information.
 - (b) Contacting the respective ZPMO with information updates.
 - (c) Setting up a command post in the office if necessary to monitor the situation and provide assistance as needed to the field team. The severity of the accident will indicate the degree to which the command post is operated.
 - (d) Acting as a clearing center for information on the accident, status of individual, background on site both to EPA and within the project.
- (3) The respective ZPMO will provide any assistance required by the Regional office such as information on chemicals. The line of responsibility in the ZPMO follows this line:
- (a) FIT
 - i) Assistant Zone Project Manager for Health and Safety (For FIT) D. Dahlstrom (Corp. Safety Director)
 - ii) Assistant Zone Project Manager for Technical Performance (For FIT) L. Welzel
 - (b) Remedial Programs (CH₂m Hill)
 - i) Corporate Safety Director (M. Chillingsworth)
 - ii) Assistant Zone Project Manager (REM) S. Agesteno

The ZPMO is responsible for:

- (a) Contacting corporate headquarters
 - (b) Contacting EPA headquarters as necessary
 - (c) Serving as a clearinghouse for information for the regional office
- (4) (d) Coordinating preparation of followup reports

E & E corporate headquarters will monitor incidents and bring the resources of the corporation to bear as needed. The callout line is:

- (a) 24-hr call line
- (b) Corporate Safety Director
- (c) Assistant Corporate Safety Director (P. Gorton)

MED-TOX Hot-Line

- A. The purpose of the MED-TOX Hot-Line is to provide the physician attending an E & E Ch₂M Hill employee who is exposed or injured:
 - (1) Toxicological information on the chemicals that may be involved
 - (2) Quick access to the individual's medical records for use in treating the person.
 - (3) A Communications Channel to Corporate Headquarters for further assistance.
- B. The MED-TOX System is activated by the project site leader or other senior team member at the site of the exposure or injury A.S.A.P. This person calls

(501) 370-8263

which is a 24-hour line to an answering service. The answering service will contact one of three toxicologists in the MED-TOX System. (Drs. Raymond Harbison, Richard Freeman, or Morris Cramer.) One of these Toxicologists will contact you.

- C. When the first call is made to MED-TOX, give the person answering the following information:
 - (1) State: This is an emergency
 - (2) Your name and region
 - (3) Telephone number to reach you
 - (4) Your location
 - (5) Name of person injured or exposed
 - (6) Nature of emergency

Give the same information to the toxicologist calling back, and answer any questions he has.

- D. If the toxicologist does not return your call within 15 minutes, call the Corporate 24-hour pager for assistance and then go to the following callout list for toxicological information at E & E headquarters in Buffalo. Start with the first and continue calling them in order until contact is made:

LIST OF TELEPHONE NUMBERS

Regional Office

Office Phone Number: _____

	<u>Name</u>	<u>Home</u>
Team Leader		
Assistant Team Leader		
Regional Safety Coordinator		

REM/FIT NATIONAL ZONE MANAGEMENT OFFICES

Office Phone Number: (703) 522-6065, FIT) (303) 620-5200, REM)

	<u>Name</u>	<u>Home</u>	<u>Office</u>
Assistant Zone Project Manager for Health and Safety	David Dahlstrom	Non-responsive	(716) 632-4491
CH ₂ M Hill's Corporate Safety Director	Mary Anne Chillinsworth		
Assistant Zone Project Manager (FIT)	Roger Gray	Non-responsive	
Assistant Zone Project Manager (REM)	Bob D'Agasteno		

E & E CORPORATE HEADQUARTERS

Office Phone Number: (716) 632-4491

	<u>Name</u>	<u>Home</u>
Corporate Safety Director	David Dahlstrom	Non-responsive
Assistant Corporate Safety Director	Peter Gorton	
Vice President for Special Projects	Gerry Gallagher	
24-hour call line	(716) 882-2804	